



CORNERSTONE® NEAR VERTICAL 100 SERIES



There is now a CornerStone® Near Vertical 100-Series unit with a new redesigned SecureLug system reducing the setback between each course allowing for near-vertical walls.

The CornerStone Near-Vertical 100-series is ideal for municipal, commercial or residential retaining structures. Units may be available in two shapes – radius face and flat face, which blend well with buildings and surrounding landscape to enhance the overall appearance of your project.

The CornerStone retaining wall system is designed for use in either gravity retaining wall structures or mechanically stabilized, geogrid-reinforced soil retaining structures. Applications range from low, light-load gravity designed residential retaining walls to high (up to 30'), commercial and industrial geogrid-reinforced structures. Whether the design is simple or complex, CornerStone walls retain their strength, while flexing under seismic loading, or in landscape applications such as curved walls, steps, or terraces.

100 SERIES

The CornerStone® Near Vertical 100-Series units are suitable for landscape gravity walls. When using geosynthetic reinforcements, the 100-Series wall has excellent stability and is structurally sound for walls up to 30' in height. The 100-Series displays the versatility and flexibility that are ideal for creative designs for residential and commercial projects.

Maximize your property lines with our 1-degree setback. That's 1/8" per unit or 3/16" per foot.

Corner units from our standard CornerStone series can be implemented into projects using the CornerStone® Near Vertical 100-Series.

Unit	Coverage	Units / Pallet	Coverage / Pallet	Weight / Piece	Weight / Pallet
F-50 Cap Tapered	1.5 ln ft / pc (0.457 ln m / pc)	48	72 ln ft (21.95 ln m)	60 lb (27 kg)	2,930 lb (1,329 kg)
F-50 Cap Straight-sides	1.5 ln ft / pc (0.457 ln m / pc)	48	72 ln ft (21.95 ln m)	60 lb (27 kg)	2,930 lb (1,329 kg)
F-100	1 pc / ft ² (10.76 pc/m ²)	40	40 ft ² (3.72 m ²)	76 lb (34.5 kg)	3,090 lbs (1,402 kg)

All weight per pallet noted above include a 50 lb pallet weight.
Maximum gravity wall height: 4'. Without any surcharges.
Maximum reinforced wall height: 30'.
Note: Each course batters back 1/8" from the previous course.



CornerStone Near Vertical 100 Unit
8" H x 18" W x 12" D
(20.3 cm x 45.7 cm x 30.5 cm)

AVAILABLE COLORS

For information on custom colors, please contact a Mutual Materials sales representative. Custom colors may be restricted by the size of the order or project.



Gray Split-Face



Summit Blend Split-Face



TERRACES



PLANTERS



RETAINING WALLS

CONNECTION

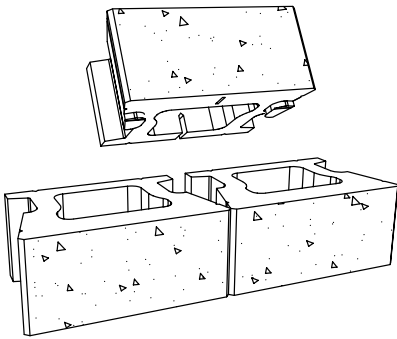
CornerStone® has been thoroughly tested for connection and strength in accordance with the design methodology promoted by the National Concrete Masonry Association (NCMA). CornerStone® walls flex with seismic pressures and resist weathering.

HOLLOW CORE

CornerStone's hollow core makes it lighter in weight for shipping and handling. Increased vertical drainage through the hollow core allows for gravel interlock across unit interfaces and improves connection between units and geogrid.

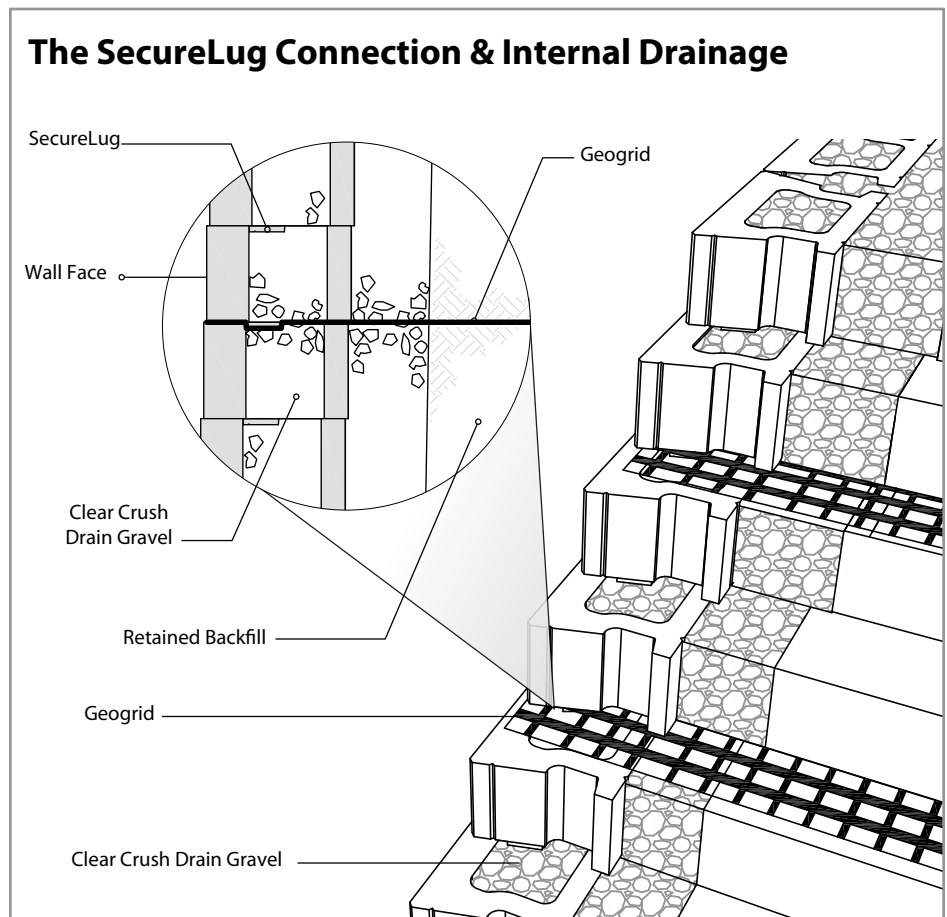
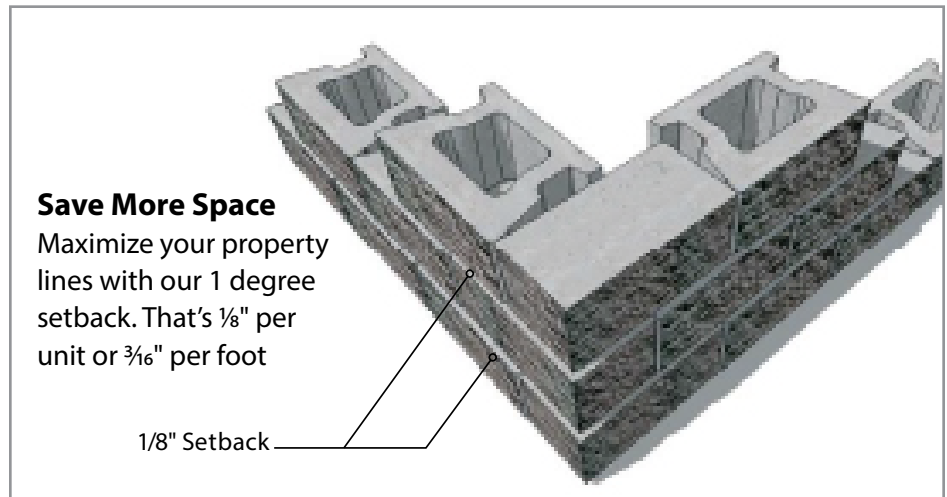
SHAPE

Unit shape and size are balanced to provide a natural profile that complements virtually any design or style of construction.



SECURELUG

CornerStone's SecureLug, when combined with gravel infill, provides very high unit to unit shear resistance and excellent unit connection strength to geosynthetics. The absence of expensive pins or clips promotes layout flexibility, while saving time and expense during installation.



FLEXIBLE

Ideal for everything from residential landscaping to large commercial projects, CornerStone® retaining walls offer the perfect combination of structural strength and aesthetic beauty. Their versatility and flexibility make them ideal for creative designs such as corners, curves, stairs, and pillars.



DESIGN FLEXIBILITY

CornerStone's lug design, wedged shape and two-inch lateral allowance in the interlock, make it possible to design 90° and 45° inside or outside corners. Concave and convex curves flow with precision. Walls can be split and rejoined for planting beds. Stairs, with secure railings, can be effectively integrated into any hardscape design. When geosynthetic reinforcement is added, a CornerStone wall becomes a dependable, attractive system that can effectively stylize or promote the natural qualities of a site. CornerStone can be safely used in high-terraced walls, under difficult site conditions.

INSTALLATION ADVANTAGE

(For more specific and detailed instructions, please contact your Mutual sales representative.)

One person can handle the lightweight, hollow-core units.

The patented, one-step connection system speeds up installation time considerably. The tapered design helps avoid costly and time-consuming cutting that can be required to meet design needs.

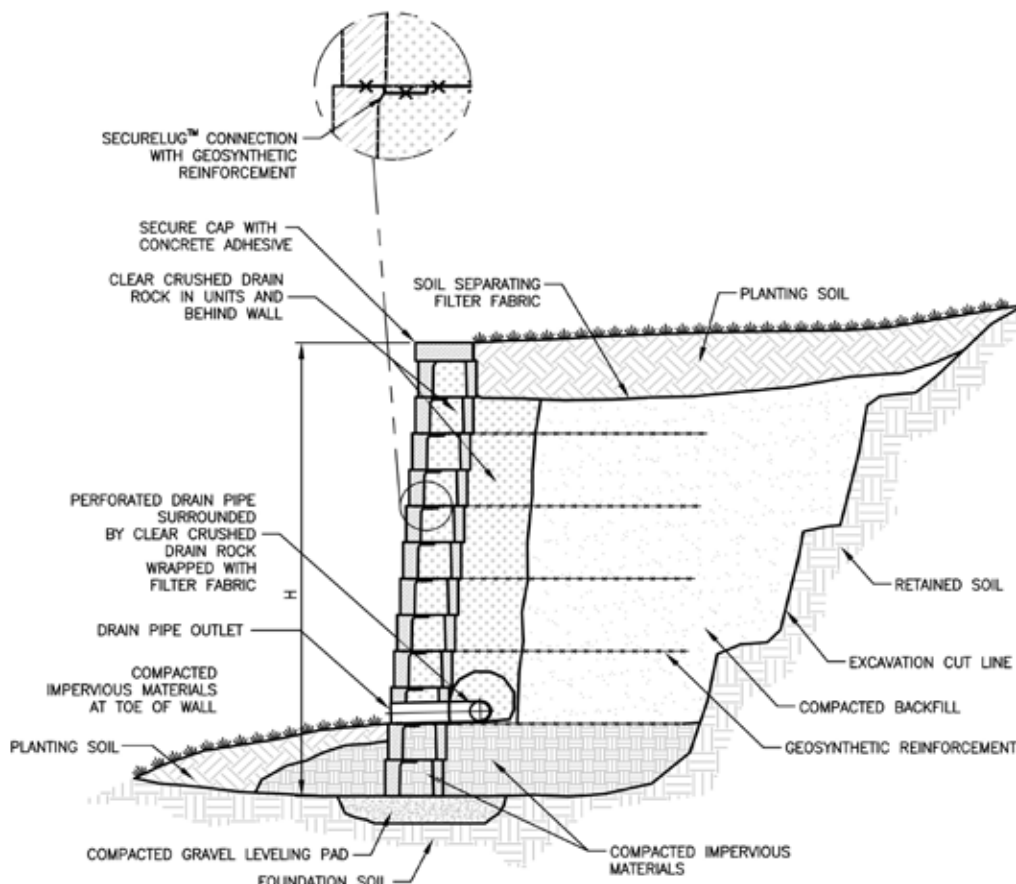
Construction can continue during inclement weather when using free-draining granular backfill. On completion, parking lots, roadways, and building structures above and below the wall can be started immediately because all backfill materials are compacted to 95% Standard Proctor dry density or greater.

CornerStone walls can be disassembled and reassembled, making the CornerStone system an ideal choice for land easements, or where access to underground services is required. In addition, the lug design is exceptionally fast and easy to install because of the precision fit and the one-step interlock.

Installation guidelines are available online at www.mutualmaterials.com or from your Mutual Materials sales representative.

PRODUCT AVAILABILITY

Not all shapes shown here are stocking. Please consult your Sales Representative or local Mutual Materials Branch for stocking shapes and colors. Custom colors may be available by special order.



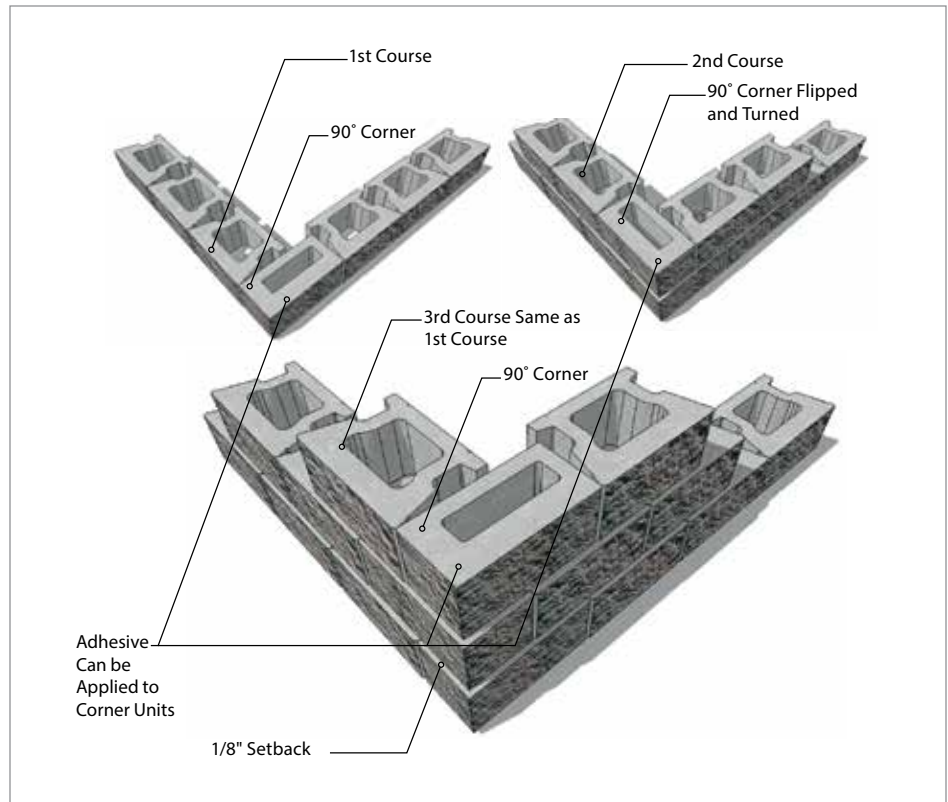
This diagram is for illustrative purposes only. Not for construction.

OUTSIDE CORNERS

STEP 1

OUTSIDE FIRST COURSE

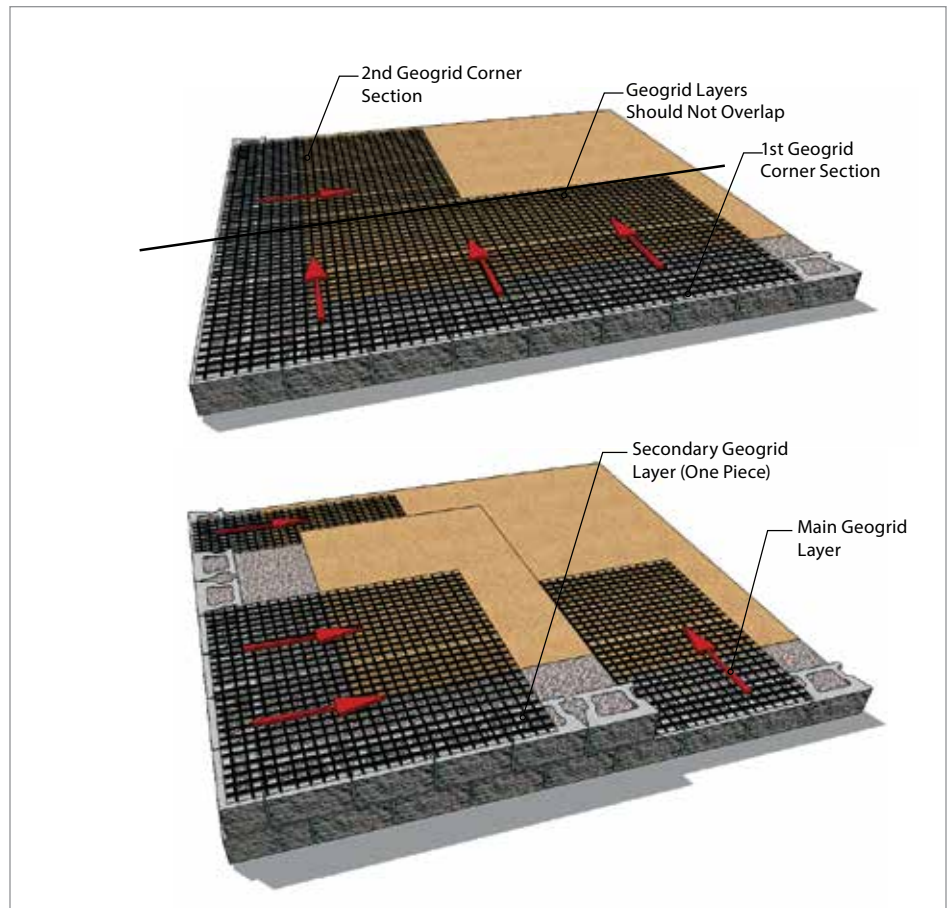
- Use a **90° Corner** unit to build an outside corner
- Place the first **90° Corner** unit on the base leveling pad to start the outside corner
- Place a CornerStone® unit on either side against the **90° Corner** unit
- Continue to lay the **CornerStone®** base course on either side of the corner until first course is completed
- Flip and turn the second course **90° Corner** overlapping the short side and half of the **CornerStone®** base unit. This unit should be pushed back 5/8" to achieve proper setback
- Continue to lay the **CornerStone®** second course on either side of the corner until second course is completed
- The **90° Corners** can be glued or concrete core filled to ensure a proper course to course outside corner interlock

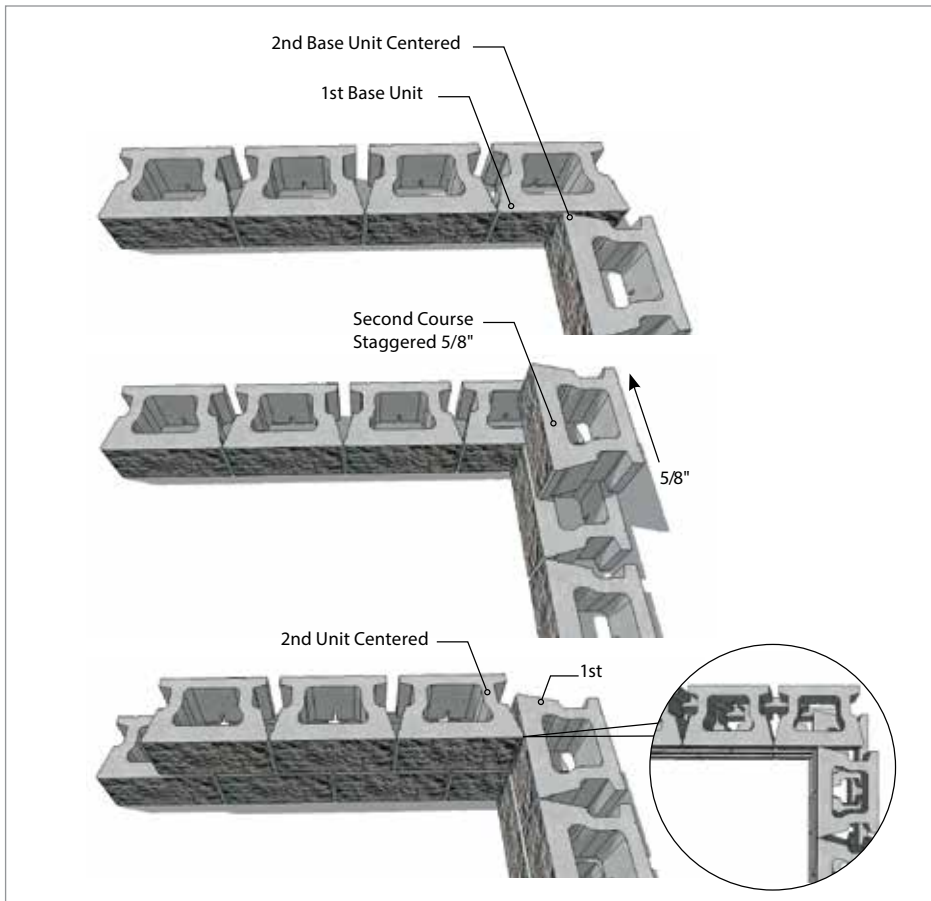


STEP 2

OUTSIDE GEOGRID CORNER

- Each geogrid length should be laid perpendicularly to the wall face
- Geogrid should not overlap on the **CornerStone®** units
- Lay the 1st geogrid corner section perpendicularly to one side of the corner
- Lay the 2nd geogrid section perpendicularly to the other side of the corner but not overlapping the 1st geogrid section
- Lay the secondary geogrid layer one course above and perpendicular to the lower main geogrid layer directional strength
- **Correct geogrid orientation, strength and length is crucial to the success of the wall project**



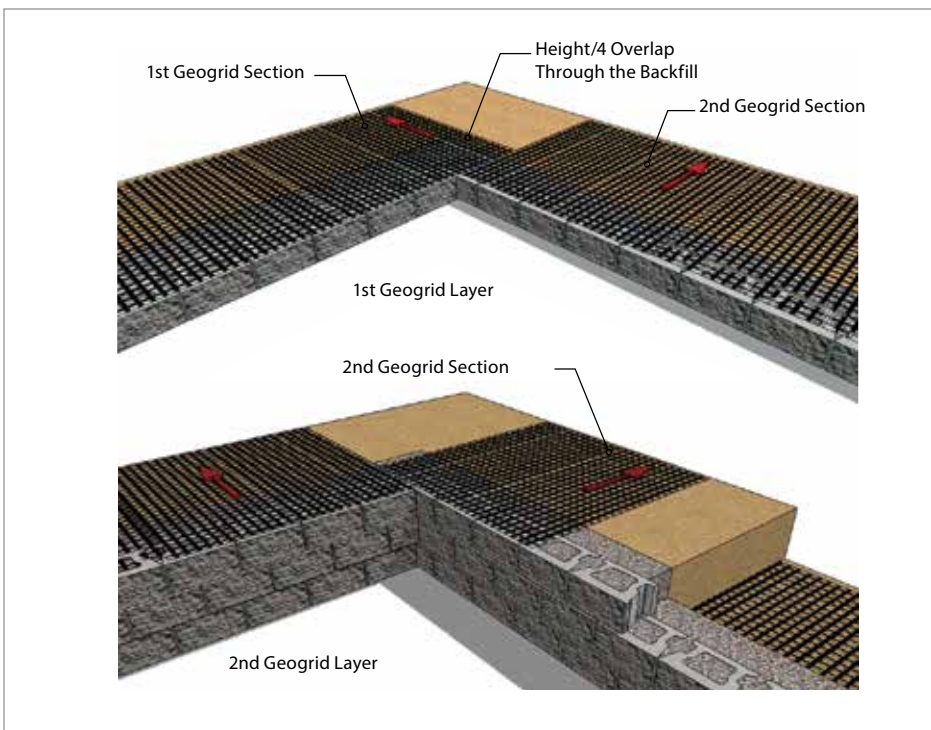


INSIDE CORNERS

STEP 1

INSIDE FIRST COURSE

- Place the second unit at right angle and centered to the first **CornerStone®** base unit. Continue to install the **CornerStone®** base units right and left of the first inside corner units
- Place the second unit at right angle and centered to the 1st unit on the second course
- Make sure second course units are placed at a 5/8" setback to the lower inside corner
- Continue to install the units left and right of the inside corner to complete the second course of the wall
- Repeat the above step by step installation until the wall height is completed or until reaching the first geogrid layer



STEP 2

INSIDE GEOGRID CORNER

- Each geogrid length should be laid perpendicularly to the wall face
- Geogrid should not overlap on the **CornerStone®** units
- Lay the 1st geogrid corner section perpendicularly to one side of the corner and overlap $h/4$ through the backfill (Height of Wall \div 4)
- Lay the 2nd geogrid section perpendicularly to the 1st geogrid
- Lay the second geogrid layer perpendicularly and overlap $h/4$ through the backfill opposite to the first geogrid layer
- The $h/4$ overlap will alternate layer to layer to properly secure the inside corner
- **Correct geogrid orientation, strength and length is crucial to the success of the wall project**



MUTUAL MATERIALS LOCATIONS

For product information and customer service, call **1-888-MUTUALØ (688-8250)**.

WASHINGTON		OREGON		IDAHO		MONTANA	
Auburn	Port Orchard	Bend		Boise		Missoula	
Bellevue	South Seattle	Clackamas		Hayden			
Bellingham	Spokane	Durham					
Marysville	Tacoma (Parkland)	Portland					
Olympia (Tumwater)	Vancouver, WA	Salem					

